Remarks

The Office Action mailed April 27, 2006 has been carefully reviewed and the following remarks are made in consequence thereof.

Claims 1-3, 5-8, 10-12, 14-16, 20-24, and 26-28 are now pending in this application. Claims 4, 9, 13, 17-19, and 25 have been canceled without prejudice, waiver, or disclaimer. Claims 8, 10-12, 14-16, 20-24, and 26-28 are allowed. Claims 1-3 and 5-7 are rejected. Claim 1 has been amended. No new matter has been added.

The rejection of Claims 1-3 and 7 under 35 U.S.C. § 103(a) as being unpatentable over Raab et al. (U.S. Patent 5,751,967) in view of Hakim (U.S. Patent 6,760,748) and GarrettCom (Ethernet LAN Switches for Harsh Environment, GarrettCom Europe, 2001) and Thompson (Scott Thompson, Intelligent Hub Access System, IEEE, 2000) is respectfully traversed.

Raab et al. describe a system (100) including a routing device (110) that may be used for routing appropriate signals to the remainder of the system via receipt and forwarding of appropriate packets to a fast Ethernet switch (120) (column 4, lines 23-28). The fast Ethernet switch may be any number of commercially available fast Ethernet switches which support the creation of VLANs and which are available from various manufacturers, such as those conforming to IEEE standard 802.13 or 802.14 (column 4, lines 28-33).

Hakim describes a system including a plurality of virtual private network (VPN) technologies (column 32, lines 46-48). The VPN technologies are proprietary (column 32, line 49). The system includes an Ethernet Access Point that is a transparent bridge between a wired Ethernet port and a wireless radio interface (column 42, lines 50-51). The bridge can be configured through a command line interface accessed via its Configuration, Ethernet, or Radio ports (column 42, lines 51-53).

GarrettCom describes a Magnum P62F ethernet switch that functions in unheated or high temperature industrial plant locations. The switch functions at a temperatures up to 70 degrees Celsius.

Thompson describes an Ethernet switch that introduces a capability to create and manage virtual local area networks (VLANS) (page 38). In the VLANS, port transmissions are organized logically rather than by geographic locations (page 38). Members of the logical segments may reside in different geographic locations, and broadcasts can be constrained to a particular segment (page 38). Soldiers and commanders are associated in a single high capacity, low latency, multimedia logical workgroup via the Ethernet switch even though they are miles apart (page 38).

Claim 1 recites a feature laden Ethernet switch comprising "a plurality of ports, said Ethernet switch configured to be operable above a temperature of approximately 55° C, said switch further configured to support at least one high-end feature, and said Ethernet switch configured to separate, into a plurality of virtual local area networks, an industrial environment network within an industrial environment other than a temperature controlled environment; and a plurality of diagnostic contacts comprising a contact for each said port, wherein said Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment."

None of Raab et al., Hakim, GarrettCom, or Thompson, considered alone or in combination, describe or suggest a feature laden Ethernet switch as recited in Claim 1. Specifically, none of Raab et al., Hakim, GarrettCom, or Thompson, considered alone or in combination, describe or suggest the Ethernet switch configured to separate, into a plurality of virtual local area networks, an industrial environment network within an industrial environment other than a temperature controlled environment, where the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial

environment. Rather, Raab et al. describe a fast Ethernet switch that supports the creation of VLANs and conforming to IEEE standard 802.13 or 802.14. Hakim describes a plurality of virtual private network technologies and an Ethernet Access Point that is a transparent bridge between a wired Ethernet port and a wireless radio interface. GarrettCom describes a Magnum P62F ethernet switch that functions in unheated or high temperature industrial plant locations. A description of the Magnum P62F ethernet switch that functions in high temperature industrial plant locations does not teach the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Thompson describes an Ethernet switch that introduces a capability to create and manage virtual local area networks (VLANS). In the VLANS, port transmissions are organized logically rather than by geographic locations. Soldiers and commanders are associated in a single high capacity, low latency, multimedia logical workgroup via the Ethernet switch even though they are miles apart. A description of the Ethernet switch that introduces a capability to create and manage virtual local area networks having port transmissions that are organized logically rather than by geographic locations for enabling communications between soldiers and commanders does not teach the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Accordingly, none of Raab et al., Hakim, GarrettCom, or Thompson, considered alone or in combination, describe or suggest the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. For the reasons set forth above, Claim 1 is submitted to be patentable over Raab et al. in view of Hakim and GarrettCom and Thompson.

Claims 2, 3, and 7 depend from independent Claim 1. When the recitations of Claims 2, 3, and 7 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claims 2, 3, and 7 likewise are patentable over Raab et al. in view of Hakim and GarrettCom and Thompson.

For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claims 1-3 and 7 be withdrawn.

The rejection of Claim 5 under 35 U.S.C. § 103(a) as being unpatentable over Raab et al. in view of Hakim and GarrettCom and Thompson, and further in view of that which is well known in the art is respectfully traversed.

Raab et al., Hakim, GarrettCom and Thompson are described above.

Claim 5 depends from independent Claim 1 which is recited above.

None of Raab et al., Hakim, GarrettCom, Thompson, or that which is well-known in the art, considered alone or in combination, describe or suggest a feature laden Ethernet switch as recited in Claim 1. Specifically, none of Raab et al., Hakim, GarrettCom, Thompson, or that which is well-known in the art, considered alone or in combination, describe or suggest the Ethernet switch configured to separate, into a plurality of virtual local area networks, an industrial environment network within an industrial environment other than a temperature controlled environment, where the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Rather, Raab et al. describe a fast Ethernet switch that supports the creation of VLANs and conforming to IEEE standard 802.13 or 802.14. Hakim describes a plurality of virtual private network technologies and an Ethernet Access Point that is a transparent bridge between a wired Ethernet port and a wireless radio interface. GarrettCom describes a Magnum P62F ethernet switch that functions in unheated or high temperature industrial plant locations. A description of the Magnum P62F ethernet switch that functions in high temperature industrial plant locations does not teach the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Thompson describes an Ethernet switch that introduces a capability to create and manage virtual local area networks (VLANS). In the VLANS, port transmissions are organized logically rather than by

geographic locations. Soldiers and commanders are associated in a single high capacity, low latency, multimedia logical workgroup via the Ethernet switch even though they are miles apart. A description of the Ethernet switch that introduces a capability to create and manage virtual local area networks having port transmissions that are organized logically rather than by geographic locations for enabling communications between soldiers and commanders does not teach the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Accordingly, none of Raab et al., Hakim, GarrettCom, Thompson, or that which is well-known in the art, considered alone or in combination, describe or suggest the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. For the reasons set forth above, Claim 1 is submitted to be patentable over Raab et al. in view of Hakim, GarrettCom, Thompson, and further in view of that which is well-known in the art is respectfully traversed.

When the recitations of Claim 5 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 5 likewise is patentable over Raab et al. in view of Hakim, GarrettCom, Thompson, and further in view of that which is well-known in the art is respectfully traversed.

Moreover, Compaq (Quickspecs, Compaq SW5425 Desktop Gigabit Ethernet Switch available at http://h18002.www1.hp.com/products/quickspecs/10090_div/10090_div.html) describes a Compaq SW5425 desktop gigabit Ethernet switch (page 2). The SW5425 uses the IEEE 802.1Q draft standard and supports up to 256 VLANs (page 2). The switch also supports protocol and port based VLANs that are not covered in the standard (page 2). The switch can be stored in an environment having a temperature from -10 degrees Celsius to 70 degrees Celsius (page 4).

Applicants respectfully traverse a statement on page 4 of the Office Action. The statements state, "Examiner takes official notice that it is well-known to one of ordinary skill in the art at the time of the invention to be motivated to implement an audible alarm to indicate that a failure has occurred because of its noticeable impact. Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to be motivated to implement an audible alarm to indicate a fault with the combined teachings of Raab, Hakim, GarrettCom Europe Group and Thompson's Ethernet communication systems...alarm indicator."

Applicants respectfully request that the Examiner provide documentary evidence describing a feature laden Ethernet switch configurable in at least one of an audible failure mode and an auto-enunciation mode as recited in Claim 5. If Applicant adequately traverses the Examiner's assertion of official notice, the Examiner must provide documentary evidence in the next office action if the rejection is to be maintained (MPEP § 2144.03(C)). Applicants respectfully submit that a feature laden Ethernet switch configurable in at least one of an audible failure mode and an auto-enunciation mode is not well-known in the art because none of Raab et al., Hakim, GarrettCom, Thompson, or Compaq, considered alone or in combination, describe or suggest the Ethernet switch as recited in Claim 5. Rather, Raab et al. describe a fast Ethernet switch that supports the creation of VLANs and conforming to IEEE standard 802.13 or 802.14. Hakim describes a plurality of virtual private network technologies and an Ethernet Access Point that is a transparent bridge between a wired Ethernet port and a wireless radio interface. GarrettCom describes a Magnum P62F ethernet switch that functions in unheated or high temperature industrial plant locations. Thompson describes an Ethernet switch that introduces a capability to create and manage virtual local area networks (VLANS). In the VLANS, port transmissions are organized logically rather than by geographic locations. Soldiers and commanders are associated in a single high capacity, low latency, multimedia logical workgroup via the Ethernet switch even though they are miles apart. Compaq describes a Compaq SW5425 desktop gigabit Ethernet switch

that supports protocol and port based VLANs that are not covered in the IEEE 802.1Q draft standard. The Compaq SW5425 desktop gigabit Ethernet switch can be stored in an environment having a temperature from -10 degrees Celsius to 70 degrees Celsius. Accordingly, Applicants respectfully submit that a feature laden Ethernet switch configurable in at least one of an audible failure mode and an auto-enunciation mode is not well-known in the art and respectfully request that the Examiner provide documentary evidence describing the Ethernet switch recited in Claim 5.

For the reasons set forth above, Applicants respectfully request that the Section 103 rejection of Claim 5 be withdrawn.

The rejection of Claim 6 under 35 U.S.C. § 103(a) as being unpatentable over Raab et al. in view of Hakim and GarrettCom and Thompson, and further in view of Compaq is respectfully traversed.

Raab et al., Hakim, GarrettCom, Thompson, and Compaq are described above.

Claims 6 depends on independent Claim 1 which is recited above.

None of Raab et al., Hakim, GarrettCom, Thompson, or Compaq, considered alone or in combination, describe or suggest a feature laden Ethernet switch as recited in Claim 1. Specifically, none of Raab et al., Hakim, GarrettCom, Thompson, or Compaq, considered alone or in combination, describe or suggest the Ethernet switch configured to separate, into a plurality of virtual local area networks, an industrial environment network within an industrial environment other than a temperature controlled environment, where the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Rather, Raab et al. describe a fast Ethernet switch that supports the creation of VLANs and conforming to IEEE standard 802.13 or 802.14. Hakim describes a plurality of virtual private network technologies and an Ethernet Access Point that is a

transparent bridge between a wired Ethernet port and a wireless radio interface. GarrettCom describes a Magnum P62F ethernet switch that functions in unheated or high temperature industrial plant locations. A description of the Magnum P62F ethernet switch that functions in high temperature industrial plant locations does not teach the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Thompson describes an Ethernet switch that introduces a capability to create and manage virtual local area networks (VLANS). In the VLANS, port transmissions are organized logically rather than by geographic locations. Soldiers and commanders are associated in a single high capacity, low latency, multimedia logical workgroup via the Ethernet switch even though they are miles apart. A description of the Ethernet switch that introduces a capability to create and manage virtual local area networks having port transmissions that are organized logically rather than by geographic locations for enabling communications between soldiers and commanders does not teach the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. Compaq describes a Compaq SW5425 desktop gigabit Ethernet switch that supports protocol and port based VLANs that are not covered in the IEEE 802.1Q draft standard. The Compaq SW5425 desktop gigabit Ethernet switch can be stored in an environment having a temperature from -10 degrees Celsius to 70 degrees Celsius. Accordingly, none of Raab et al., Hakim, GarrettCom, Thompson, or Compaq, considered alone or in combination, describe or suggest the Ethernet switch configured to transfer data between the temperature controlled environment and the industrial environment. For the reasons set forth above, Claim 1 is submitted to be patentable over Raab et al. in view of Hakim and GarrettCom and Thompson, and further in view of Compaq.

When the recitations of Claim 6 are considered in combination with the recitations of Claim 1, Applicants submit that dependent Claim 6 likewise is patentable over Raab et al. in view of Hakim and GarrettCom and Thompson, and further in view of Compaq.

For at least the reasons set forth above, Applicants respectfully request that the rejection of Claim 6 under 35 U.S.C. 103(a) be withdrawn.

Moreover, Applicants respectfully submit that the Section 103 rejections of Claims 1-3 and 5-7 are not proper rejections. As is well established, obviousness cannot be established by combining the teachings of the cited art to produce the claimed invention, absent some teaching, suggestion, or incentive supporting the combination. None of Raab et al., Hakim, GarrettCom, Thompson, or Compaq, considered alone or in combination, describe or suggest the claimed combination. Furthermore, in contrast to the assertion within the Office Action, Applicants respectfully submit that it would not be obvious to one skilled in the art to combine Raab et al. with Hakim, GarrettCom, Thompson, or Compaq because there is no motivation to combine the references suggested in the cited art itself.

As the Federal Circuit has recognized, obviousness is not established merely by combining references having different individual elements of pending claims. Ex parte Levengood, 28 U.S.P.Q.2d 1300 (Bd. Pat. App. & Inter. 1993). MPEP 2143.01. Rather, there must be some suggestion, outside of Applicants' disclosure, in the prior art to combine such references, and a reasonable expectation of success must be both found in the prior art, and not based on Applicants' disclosure. In re Vaeck, 20 U.S.P.Q.2d 1436 (Fed. Cir. 1991). In the present case, neither a suggestion or motivation to combine the prior art disclosures, nor any reasonable expectation of success has been shown.

Furthermore, it is impermissible to use the claimed invention as an instruction manual or "template" to piece together the teachings of the cited art so that the claimed invention is rendered obvious. Specifically, one cannot use hindsight reconstruction to pick and choose among isolated disclosures in the art to deprecate the claimed invention. Further, it is impermissible to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such

reference fairly suggests to one of ordinary skill in the art. The present Section 103 rejections are based on a combination of teachings selected from multiple patents in an attempt to arrive at the claimed invention. Specifically, Raab et al. teach a fast Ethernet switch that supports the creation of VLANs and conforming to IEEE standard 802.13 or 802.14. Hakim teaches a plurality of virtual private network technologies and an Ethernet Access Point that is a transparent bridge between a wired Ethernet port and a wireless radio interface. GarrettCom describes a Magnum P62F ethernet switch that functions in unheated or high temperature industrial plant locations. Thompson teaches an Ethernet switch that introduces a capability to create and manage virtual local area networks (VLANS). In the VLANS, port transmissions are organized logically rather than by geographic locations. Soldiers and commanders are associated in a single high capacity, low latency, multimedia logical workgroup via the Ethernet switch even though they are miles apart. Compaq teaches a Compaq SW5425 desktop gigabit Ethernet switch that supports protocol and port based VLANs that are not covered in the IEEE 802.1Q draft standard. The Compaq SW5425 desktop gigabit Ethernet switch can be stored in an environment having a temperature from -10 degrees Celsius to 70 degrees Celsius. Since there is no teaching nor suggestion in the cited art for the combination, the Section 103 rejections appear to be based on a hindsight reconstruction in which isolated disclosures have been picked and chosen in an attempt to deprecate the present invention. Of course, such a combination is impermissible, and for this reason alone, Applicants request that the Section 103 rejections of Claims 1-3 and 5-7 be withdrawn.

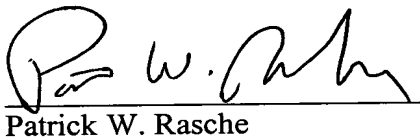
For at least the reasons set forth above, Applicants respectfully request that the rejections of Claims 1-3 and 5-7 under 35 U.S.C. 103(a) be withdrawn.

Claims 8, 10-12, 14-16, 20-24, and 26-28 are allowed. Applicants respectfully disagree with a statement of reasons for allowance on page 6 of the Office Action. The statement states, "Although the cited prior art discloses..., they fail to teach or suggest with

respect to claim 8 and 24,...production system comprises of at least two Ethernet switches coupling office device to industrial device." Applicants respectfully submit that Claim 8 does not include, "production system comprises of at least two Ethernet switches coupling office device to industrial device", as stated in the statement. Rather, Claim 8 is recited above. Moreover, Applicants respectfully submit that Claim 24 does not include, "production system comprises of at least two Ethernet switches coupling office device to industrial device", as stated in the statement. Rather Claim 24 is recited above.

In view of the foregoing amendments and remarks, all the claims now active in this application are believed to be in condition for allowance. Reconsideration and favorable action is respectfully solicited.

Respectfully Submitted,



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